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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,171	10/02/2003	Yuichi Kuze	10407-64US (A3037MT-US1)	3960
570	7590	09/07/2006	EXAMINER	
AKIN GUMP STRAUSS HAUER & FELD L.L.P. ONE COMMERCE SQUARE 2005 MARKET STREET, SUITE 2200 PHILADELPHIA, PA 19103			PSITOS, ARISTOTELIS M	
			ART UNIT	PAPER NUMBER
			2627	

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/679,171

Applicant(s)

KUZE ET AL.

Examiner

Aristotelis M. Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Applicants' response of 6/27/06 has been considered with the following results.

Specification

The amendment to the title of the invention is greatly appreciated and has been entered.

IDS of 8/11/06 has been made of record.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

1. Claims 1-7, 12-1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular all independent claims in this group (claims 1, 12, 16, 18, 19 and 20) recite

The phrase " --- light quantity ---". However this phrase is not defined. Since as filed, applicants' have also included claims reciting " --- light amplitude ---", (see claim 8 for instance) the examiner interprets these phrases as NOT BEING the same. Hence, the above noted claims are rejected accordingly. The examiner cannot read limitations into the claim, nor is undue speculation as to the meaning of the claims be permitted – see for instance *In re Steele, 134 USPQ 292.*

Response to Arguments

Applicant's arguments filed 6/27/06 have been fully considered but they are not persuasive.

Applicants point to sections 103 and 120 (paragraphs) of the corresponding disclosure. However, these sections add no further elaboration as to what the claimed "light quantity generating section" both the first and second are. If the phrase is to be interpreted as the "amount of light" focused onto the photodetector, how this differs from the "amplitude" of the focusing signal in the corresponding claims 8 plus is not clear.

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What element(s) applicants are attempting to define in these claims vs. the elements found in claim 8 are not readily discernable from the claimed terminology. Further elaboration is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-7,12-15,16 and 18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/481206 in view of Maeda. The following analysis is made:

Present Pending application	co-pending application Sn 10/481206
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Claim 1	claim 9
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The present claims differ in the following:

a) recitation of "a collector optics"	--- this is interpreted as the converging means of the copending application.
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b) first and second focus

signal generating sections	---- this is interpreted as the claimed focus control means
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c) first and second light

quantity generating sections

---- this is interpreted as the claimed light-receiving means

d) ultimate section of claim 1

--- this is interpreted as the claimed spherical aberration
detection means.

With respect to the first and second normalizing section – such capabilities are well known in this art as taught by the Maeda reference.

It would have been obvious to modify the above noted claims with such a teaching in order to take advantage of such signal processing as taught by Maeda.

With respect to claims 2 & 3, such are included in the above noted focus control means.

With respect to claims 4 and 5 such are present in the above noted copending claim – see the claimed limitations to spherical aberration changing means, and spherical aberration control means.

With respect to claim 7, this is what Maeda does, hence such a function follows.

Similarly, claims 12 –13-14-15 – apparatus limitations are so met – especially when the first and second light receiving elements are recited in claim 13.

Also, method claims 16 and 18 are obvious method variants of the above apparatus limitations, and hence obvious thereover.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

Applicants' arguments filed 6/27/06 have been fully considered but they are not persuasive.

Applicants' present 3 arguments, the first two have no bearing on a provisional double patenting situation. The examiner must present the rejection. Future acts are not controlling.

With respect to the third argument, that the examiner has misinterpreted the copending application, this is not persuasive, since as depicted in figure 11 of the copending application and the claims drawn thereto, absent the limitations identified above, the systems do overlap. The disclosed inventions are not of moment, because the claims are in conflict. If one further limited the broader set of claims, such a situation (obvious type- provisional double patenting) might not exist.

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3. Claim 20 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/679171 in view of Maeda further considered with Official notice.

Pending claim 20 focuses upon a "controller circuit" including a microcomputer in addition to the above identified elements (as identified in paragraph 3 above).

Hence the examiner takes the position that microcomputers are notoriously old and well-known and official notice is taken thereof.

It would have been obvious to modify the base claims with the additional teaching of a microcomputer, and use such in this environment so as to provide the overall controlling capability required in order to be an efficient system and use state of the art hardware – i.e., microcomputers.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

Applicants' arguments filed 6/27/06 have been fully considered but they are not persuasive. See the above rebuttal.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

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3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 8-11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimano et al considered with Maeda and all further considered with either JP 2001-307349/or Sano et al.

Shimano et al disclose in this environment the ability of generating light beam to an optical record medium, and upon using his disclosed detection subsystems further reproduce the information. The reflected beams are appropriately segregated into an outer and inner peripheral – see the discussion with respect to the peripheral detection capability start at col. col. 2 line 65 and continuing with the disclosure focusing upon figure 14.

There is no clear depiction of focusing control/capability predicated upon such.

Nevertheless, focusing control using such a divided schema is taught by the Maeda reference.

Furthermore, either the JP 2001-307349 or Sano et al reference teach in this environment the ability of compensating spherical aberration.

It would have been obvious to modify the base system of Shimano et al with the above additional teachings from both Maeda and either JP 2001-307349 or Sano et al, motivation is to not only process the reproduced signals as desired by Shimano et al, but also to predicate additional focusing and aberration control abilities and hence provide for a better reproduced signal.

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With respect to claims 9 and 10, driver elements are inherently present in order to correct for the tilt/focusing condition. The examiner interprets the desired result of claim 10 to mean driving such until "no" or a "zero" condition exists.

With respect to claim 11, the detection of the above system in Shimano et al is predicated upon amplitude.

With respect to method claim 17, such is met when the above combined system operates.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

In as so far the argument(s) are still relevant, the base reference is not relied upon for what applicants' argue against. The ability of having a first and second normalization capability is considered merely one of degree, i.e., normalization of a signal parameter is well established as further taught with respect to figure 1 by Maeda. Hence normalization of one, two, etc. fe signals is considered obvious.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 7 above and further with Official Notice.

Claim 19 is drawn to a "computer product". The examiner interprets this as the well known --- software --- presented by a set of instructions.

The ability of providing a set of instructions on a computer product is considered well known and Official Notice of such is taken.

It would have been obvious to modify the base system and provide for a set of instructions to perform the desired method analogous to the above combined system. Motivation is to establish a "set-up" routine for disc systems and compensate for fe and aberration states in the system and hence auto correct for such.

Response to Arguments

Applicant's arguments with respect to this claim have been considered but are moot in view of the new ground(s) of rejection.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 8 and further considered with Official notice.

Claim 20 also requires a microcomputer.

The existence of microcomputers is considered well known and Official notice is taken thereof.

It would have been obvious to modify the base system as relied upon with respect to claim 8 and modify such to include a microcomputer to provide for the overall cooperation among the various subcomponent/sections and hence take advantage of such up to date elements – i.e., microcomputers for their inherently advantage.

Response to Arguments

Applicant's arguments with respect to this claim have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshida – see discussion starting at col. 6 line 32 till col. 10 line 54 with respect to inner and outer peripheral detection elements/capabilities for both fe and aberration correction. This reference can also be relied upon in the above rejections (as the base reference).

Okazaki – see the discussion with respect to the normalization circuitry.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-F: 6:00 - 2:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos
Primary Examiner
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A handwritten signature in black ink, appearing to be 'AMP', written over a horizontal line.

AMP